UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

APR 24 2017

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Re: Mountaineer Xpress Project and Gulf Xpress Project Draft Environmental Impact Statement; West Virginia, Kentucky, Tennessee, and Mississippi; February 2017 (FERC Docket No. CP16-357-000, CP16-357-000; CEQ#20170029)

Dear Secretary Bose:

In accordance with the National Environmental Policy Act (NEPA) of 1969 and Section 309 of the Clean Air Act the U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for Mountaineer Xpress Project (MXP) and the Gulf Xpress Project (GXP) as proposed by Columbia Gas Transmission, LLC (Columbia Gas) and Columbia Gulf Transmission, LLC (Columbia Gulf). Columbia Gas and Columbia Gulf (the applicants or companies) request authorization from the Federal Energy Regulatory Commission (FERC or commission) to construct, operate, and maintain new and upgraded natural gas pipeline and ancillary facilities. Columbia Gas proposes to construct and operate the MXP, which includes approximately 170 miles of mostly 36 inch-diameter natural gas transmission pipeline, three new natural gas-fired compressor stations (CS) and two new regulator stations, and additional gas-fired and electric compression at one existing CSs and two new CSs which are approved or pending under separate FERC proceedings. Columbia Gulf proposes to construct and operate GXP, which includes seven new gas-fired compressor stations, additional and/or improvements at one approved CS under a separate FERC proceeding and additional compression and/or improvements at one existing meter station. The MXP and GXP (the projects) would provide about 2.7 million and 860,000, respectively, dekatherms per day of natural gas.

EPA is a cooperating agency for this DEIS. This comment letter jointly reflects the review and comments of EPA Regions 3 and 4 on the MXP and GXP DEIS. As a cooperating agency, EPA has engaged FERC in order to raise and resolve issues during scoping, FERC's pre-filing process, and EIS preparation. EPA appreciates the coordination done by FERC with federal agencies and efforts made to incorporate suggestions and address concerns raised during scoping and EIS development. This collaborative approach has resulted in a more thorough and clear analysis and presentation of information in the EIS.

EPA's review was primarily concerned with identifying and recommending corrective action for the environmental impacts associated with the proposal. This letter provides recommendations we believe would further strengthen FERC's EIS and consideration of mitigation as it is finalized, in the areas of geology, streams, wetlands and forests, groundwater and drinking water protection, communities, air protection, and cumulative impacts. More detail on these recommendations are provided in the enclosed technical comments.

It is EPA's policy to review and comment in writing on all draft EISs officially filed with the EPA, to provide a rating of the draft EIS which summarizes EPA's level of concern (EPA Policy and Procedures, 1984). The purpose of the rating system is to synthesize the level of EPA's overall concern with the proposal and to define the associated follow-up that will be conducted with the lead agency (EPA Policy and Procedures, 1984). Assignments of the rating are based on the overall environmental impact of the proposed action, including project impacts that are not fully addressed in the DEIS. EPA rates the environmental impacts associated with the preferred alternative as "Environmental Concerns" and the DEIS information as "Insufficient" under its DEIS rating scheme. See www.epa.gov/nepa/environmental-impact-statement-rating-system-criteria.

We would welcome the opportunity to discuss the comments provided in this letter and the enclosure and answer any questions you may have, at your convenience. EPA recognizes national energy needs and is committed to energy development and distribution, while assuring environmental protection. We will continue to work with FERC to address the topics raised by the agency. Please contact the staff contact for this project Alaina McCurdy at (215) 814-2741 or mccurdy.alaina@epa.gov.

Sincerely,

Jeffrey Lapp
Associate Director
Office of Environmental Programs

Enclosure (1) Technical Comments

Enclosure–Technical Comments
Mountaineer Xpress Project and Gulf Xpress Project

1) Geology

We recommend that the final EIS provide additional risk mitigation information related to the challenging geologic conditions likely to be encountered during construction. Given that blasting, in combination with steep slopes across 58.2 miles of the route, and active or abandoned mines and quarries, has the potential to result in adverse impacts, we support FERC's recommendation regarding timely filing of the results of a Phase I Landslide Hazard Assessment, as well as timely completion of relevant field activities and assessments so that the results may be included in a Phase II Landslide Hazard Assessment to be filed prior to construction. In addition, EPA recommends that the final EIS evaluate the proximity of streams to locations with high landslide susceptibility in order to ensure that impacts to these resources are avoided or minimized with appropriate construction techniques. Because the MXP is entirely within areas with a high incidence and high susceptibility to future landslides zone, we suggest that a Phase II Landslide Hazard Assessment include a steep slope mitigation plan and site specific methodology for erosion control and construction on steep slopes, included as an appendix, or appropriately referenced. This plan could include specific soil stabilization methods in the EIS such as where slope breakers should be implemented.

EPA recommends that the EIS evaluate where improvements during construction and operation of pipelines can be made, based on past performance on other recent pipelines, that may reduce erosion and sediment control issues, turbidity in streams, impact to surface or ground water supply, and introduction of invasive species associated with MXP and GXP. This information could provide recommendations for best management practices (BMPs) and other mitigative approaches for impacts, and can be incorporated into direct, indirect and cumulative impact analysis.

As the DEIS indicates that challenging geologic conditions are likely to be encountered during project construction, the DEIS also discusses construction challenges and constructability issues in the rationale for dismissing the Legacy 2 and LXP Alternatives. We recommend clarification of how the constructability and terrain differs from issues associated with the proposed MXP, such as specifying how much construction workspace is needed, what amount of space would be considered insufficient, and how much of the route was deemed to have insufficient workspace.

2) Wetlands, Streams and Forests

The DEIS reports that construction of the MXP and GXP project would temporarily impact about 7.6 and 0.12 acres of wetlands, respectively. Five hundred eight waterbodies would be crossed by the centerline of MXP pipelines (411 open-cut crossings, 96 dry-ditch crossings, and 1 HDD), and an additional 360 waterbodies would be within the pipeline construction right-of-way (ROW) but would not be crossed by the pipeline directly. GXP could potentially affect 15 waterbodies. Temporary and permanent workspace and water withdrawals for hydrostatic testing may impact additional wetland and stream habitat.

Some waterbodies are proposed to be crossed by MXP multiple times, such as the South Fork Hughes River, Spring Creek and Meathouse Fork, which also contain suitable habitat for federal

endangered mussel species. EPA echoes concerns for multiple crossings of the same waterbody and the protection of endangered species habitat expressed by the USFWS, and supports the USFWS recommendation to avoid or drastically minimize the number of crossings to these streams. Water withdrawal may affect recreational and biological uses, stream flow, and result in impacts to stream and wetland habitat, particularly in streams that will be affected by both construction and water withdrawals. Consideration of specific streams and wetlands of concern or high sensitivity, along with coordinating with appropriate resource agencies, may help determine if additional avoidance and minimization efforts may be necessary to reduce impacts to important resources within the project area. Examples include resources on the National Rivers Inventory, communities and riparian habitat.

In order to offset the direct and indirect effects from the fragmentation and conversion of regulated waters, EPA recommends that the final EIS present compensatory mitigation addressing both the permanent loss and the permanent conversion of wetlands. EPA can provide expertise on mitigation monitoring, performance measures, success criteria and other CMP components, in an effort to improve mitigation success and more fully address resource loss or conversion.

As reported in Table 4.8-1, of the 3,590 total acres of land affected by MXP construction, 2,327 acres are forested. Based on FERC's independent analysis, construction of MXP would directly impact of 2,255 acres of core forest areas (CFA). The DEIS recognizes that forest habitat impacts would include fragmentation and edge effects that would impact a number of species that depend on interior forest habitat. EPA recommends that quantification and assessment of effects to interior forest and forest fragmentation also describe the long-term and short-term impacts on migratory bird habitat, including a description of up-front avoidance and minimization efforts and impact mitigation plans for forest resources.

Discussion on the Legacy 2 Alternative asserts that a co-located route with multiple pipelines could inhibit wildlife crossings and further reduce interior forests. While these disadvantages could exist for this alternative, the DEIS does not consider the environmental advantages of preserving existing interior forest blocks elsewhere, or preventing the creation of new forested edges which could inhibit wildlife crossings. We recommend that the FEIS weigh these environmental advantages and disadvantages. Similarly, these environmental advantages should be considered for the LXP Alternative.

3) Groundwater and Drinking Water Protection

While the project area of the planned pipeline does not directly cross wellhead protection areas (WHPAs) as defined by the West Virginia Bureau of Public Health, the DEIS outlines the proximity of the project area to four wellhead protection areas (Doddridge County Park Well #1 and Roane-Jackson Technical Center Wells #1-3). Columbia intends to minimize the potential for impacts on WHPAs through general construction practices as specified in the Erosion Sediment Control Plan and Spill Prevention, Control and Countermeasures plan. Upgraded construction practices could be warranted near the Doddridge County Park Well #1 and Roane-Jackson Technical Center Wells #1-3 in order to protect these drinking water sources.

Many private wells exist in close proximity to the proposed project workspace. Although some private wells have been identified in Table 4.3-3, Columbia should continue to identify (through landowner consultation, civil survey, and county health departments) private drinking water supply

wells within 150 feet of the project workspace. This table also summarizes these wells and Columbia's status on identifying private well use. Further, EPA recommends that, prior to construction, Columbia finalize the status of the wells marked as 'Pending' due to ongoing consultation with the county health departments. The DEIS mentions that specific protection measures that would be implemented for active wells located inside construction areas have not yet been identified. We recommend that the final EIS identify specific measures that would be used to protect these wells at a level as those identified for human consumption, in addition to the previously mentioned hand-dug water supply well at milepost 107.2.

The DEIS outlines several Surface Water Intake Facilities and Source Water Protection Areas (SWPAs) crossed by the project (Table 4.3-6), and designates whether the project intersects with the Zone of Critical Concern (ZCC), the Zone of Peripheral Concern (ZPC), or both. To prevent impacts on public and private water supplies, we recommend that the final EIS consider route deviations that do not directly pass through state-defined SWPAs, especially those where the project crosses ZCCs multiple times (Convestro, milepost 0.1 – 6.4; Town of West Union, milepost 46.0 – 52.8; Milton Water, milepost 155.8 – 163.9). We recommend that appropriate government entities and/or water utilities that manage each SWPA be identified and coordinated with to identify specific protective measures for any SWPAs crossed by the project be developed prior to construction. Protective measures where the final pipeline route crosses SWPAs may include upgraded construction techniques.

4) <u>Communities</u>

We appreciate FERC's use of appropriate benchmarks in the Environmental Justice (EJ) analysis. To improve the clarity of the analysis, tables could include the actual benchmarks used to identify areas of Environmental Justice concern be made available in an easily identifiable and simply understood format. While census tracts and block groups of concern are mentioned and identified in the text following the tables, it would be helpful to have all of the benchmark values clearly listed in the table in such a way as to give readers meaningful information that helps to inform and clarify the process. It would also be helpful to indicate which census tracts or block groups exceed the benchmarking criteria in the tables. It would be helpful to include locations of areas of potential EJ concern on appropriately scaled maps.

The EJ assessment should consider all of the adverse and beneficial impacts that may occur during construction and operation of the project in the study area or adjacent to it, that may reasonably be anticipated to have an impact upon minority and/or low-income populations. It is recommended that the impacts of short term site activities such as construction, truck traffic, noise and fugitive dusts be clearly considered at as to their role in impacting the lives of residents in the study area. It is also suggested that FERC consider the air quality impact on populations of concern in non-attainment areas.

The DEIS mentioned that the proposed Cane Ridge Compressor Station *"...would result in a noticeable increase in noise levels, the noise levels would remain below our noise criterion...."* Please note that the use of electric driven compressor units may result in reduced noise impacts to the community and environment. We suggest that the practicability of such units be considered as a way to reduce noise impacts to the community surrounding the Cane Ridge Compressor Station.

5) Air Protection

There are (5) major compressor stations located in non-attainment areas or Maintenance areas (see table 4.11. page 4-263). The applicability of these stations to the New Source Review (NSR) regulation is based on the potential-to-emit (PTE) for each compressor station and comparison to applicable permitting thresholds in tons per year. (The PTE are shown in tables 4.11-4 through 4.11-9, presented in sections 4.11.1.2.3 and 4.11.1.2.4.). It is shown that for each station considered individually, the PTE of the station is below the major source threshold requirement of 250 tons per year. However, if they are looked at cumulatively, the total PTE for each criteria pollutant exceeds the 250 ton per year threshold, and in some cases, is greater than ten-times (10x) the threshold. Please see the table below:

	NOX (tpy)	CO (tpy)	VOC (tpy)	PM10/PM2.5 (tpy)	SO2 (tpy)	CO2e (tpy)	Formalde-hyde (Single HAP) (tpy)	Total HAPs (tpy)
Total Station Emissions Oak Lane Compressor	127.5	188.36	28.31	15.11	1.65	276,728	1.72	2.5
Emissions from the Sherwood Compressor Station	101.85	239.93	23.7	11.75	1.25	224,976	1.36	2
Emissions from the White Oak Compressor Station	89.35	213.82	18.46	10.32	1.11	193,436	1.22	1.78
Emissions from the Mount Olive Compressor Station	120.39	244	24.93	14	1.51	264,200	1.62	2.37
Emissions from Expansion of the Ceredo Compressor Station	3,582.56	309.93	96.64	41.05	1.21	208,685	40.09	57.78
Emissions from Expansion of the Elk River Compressor Station	98.37	243.38	76.15	11.65	1.27	228,025	1.25	1.86
TOTAL EMISSIONS	4120.02	1439.4	268.2	103.9	8	1396050	47.26	68.29
Major source threshold	250	250	250	250	250	N/A	10	25

The cumulative total emissions would trigger NSR. While such cumulative effects may be considered outside the scope of some permitting programs under the Clean Air Act, air emissions from pipeline compressor station projects such as MXP may have ambient air impacts in such a way as to hamper an area's ability to achieve and maintain national ambient air quality standards (NAAQS). Under 40 CFR 51.160, West Virginia DEQ must consider the cumulative impact from numerous sources on attaining and maintaining air quality standards. We recommend the final EIS consider this situation

as a component of a cumulative effects analysis and consider additional mitigation efforts to address this issue.

6) Cumulative Impacts

EPA recommends that additional analysis of cumulative impacts be provided in the final EIS. The DEIS concludes that the cumulative effect on surface waterbody resources would be temporary and minor, and that groundwater effects would be less than significant. Aquatic resources have the potential to be cumulatively impacted by many factors, including waterbody crossings, change in recharge patterns, clearing, erosion, landslides, and other geohazards, blasting, and water withdraws for hydrostatic testing. We believe the consideration of these factors from other past, present and reasonably foreseeable projects is critical as other FERC jurisdictional projects occur in similar geologic settings and occur within the same watersheds as the proposed action.

Accordingly, we recommend FERC consider performing a cumulative impact assessment at the individual watershed scale, i. e. by individual HUC 10 or 12. We suggest this assessment include stream crossings and surface and groundwater withdrawals, as these will likely have more impact to surface waters than acres disturbed. Other environmental variables that influence the degree of impact, such as miles of high quality and impaired streams; location of rare, threatened, and endangered species; number of National Pollutant Discharge Elimination System permitted outfalls; and any water restoration plans in the HUC are also relevant to cumulative impacts, and can strengthen FERC's determinations whether cumulative impacts to stream crossings are temporary and minor. We recommend that the cumulative impact analysis also consider impacts to water quality, headwater streams, and high quality and/or sensitive aquatic resources.

We recommend FERC specifically identify subwatersheds where the proposed action would likely have a cumulative impact. Below please review an example of methodology used to assess the cumulative impact of stream crossings, the number of stream crossings per HUC10 and HUC12 for the MXP and other FERC jurisdictional pending or approved projects. This type of data assessment could help highlight areas of special concern and high potential for cumulative impacts, such as the Headwaters Middle Island Creek which is impaired for benthic macroinvertebrates and has high numbers of stream crossings. Headwaters also are critical for the downstream Federally-listed endangered freshwater mussels, where they occur. By identifying these areas, FERC can focus efforts to minimize stream crossings in these areas through minor route modifications.

Table 1: HUC 10's with highest number of cumulative stream crossings				
	HUC 10	HUC Name	# of stream crossings	Additional pipelines in HUC with MXP
1	0503020104	Headwaters Middle Island Creek	58	Rover, ACP, MVP
2	0503020102	Fishing Creek	35	ACP, MXP
3	0503020105	Outlet Middle Island Creek	27	ACP, Rover
4	0503010611	Fish Creek	25	LXP
5	0503020103	McElroy Creek	17	ACP, Rover

Table 2: HUC 12's with the highest number of cumulative stream crossings				
	HUC 12	Name	# of Stream Crossings	Additional pipelines in HUC with MXP
1	050302010402	Buckeye Creek*	19	Rover, ACP, MVP
2	050302031008	Grass Run-South Fork Hughes River	14	n/a
3	050302010403	Meathouse Fork*	13	ACP, MVP
4	050302010204	Upper Fishing Creek	13	n/a
5	050302010404	Nutter Fork-Middle Island Creek*	12	Rover
6	050301061105	Lower Fish Creek	11	LXP

* = located within the same HUC 10, Headwaters Middle Island Creek, 0503020104.